

Forever Chemicals Demystified

Podcast Miniseries Highlights Stories of Wisconsin Communities Impacted by PFAS Pollution

By Bonnie Willison, Video and Podcast Producer, University of Wisconsin-Sea Grant

In 2023 Wisconsin Sea Grant and Midwest Environmental Advocates launched Public Trust, a new podcast miniseries that explores Wisconsin's response to PFAS contamination. Host Richelle Wilson visits communities impacted by these toxic "forever chemicals" to understand how local residents have been affected and what they're doing to secure their rights to clean water. The miniseries is presented as part of the award-winning The Water We Swim In podcast.

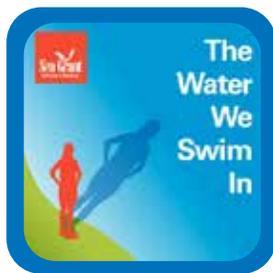


LakeTides
 The newsletter for people interested in Wisconsin lakes

Wisconsin Sea Grant video and podcast producer Bonnie Willison traveled with Richelle to French Island and Peshtigo to conduct interviews with community members. "Many of us take clean drinking water for granted, so hearing from these Wisconsinites on the front lines of PFAS contamination is sobering. I'm glad I'm able to help bring these voices to the public through our partnership with Midwest Environmental Advocates," said Willison.



Richelle Wilson interviews French Island resident and local official Lee Donahue, who takes listeners on a tour of the neighborhood and shares how local drinking water was contaminated by PFAS.



The miniseries can be found on The Water We Swim In podcast at <https://pod.link/1622240864> or wherever you get your podcasts.

The first episode of *Public Trust* takes listeners to the small town of Campbell on French Island to find out what it's like when an entire community can no longer safely use its tap water. French Island resident and local official Lee Donahue takes listeners on a tour of the neighborhood and tells the story of how local drinking water was contaminated by PFAS-containing firefighting foam used at the La Crosse Airport.

(Continued on page 2)

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Volume 49, No. 1 Winter/Spring 2024

Wisconsin Lakes Partnership

Bonnie Willison



Lee Donahue and her neighbors are actively engaged in advocating for new environmental health protections, including a statewide groundwater quality standard for PFAS.

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Not only are Lee Donahue and her neighbors telling their stories, they're also actively engaged in advocating for new environmental health protections, including a statewide groundwater quality standard for PFAS.

While Wisconsin has a water quality standard that limits the level of PFAS in municipal drinking water, there's no equivalent standard for groundwater.

That's a problem for communities like French Island, which depend entirely on private wells for their drinking water.

Later in the series, *Public Trust* takes listeners to the northwoods, where Wisconsin Sea Grant emerging contaminants scientist Gavin Dehnert is working with the Great Lakes Indian Fish & Wildlife Commission (GLIFWC) to look for PFAS in tribally-harvested goods like wild rice, maple sap, and walleye. In this episode, *Public Trust* producer Bonnie tells Richelle about her trip to the Lac Courte Oreille reservation to join tribal members in harvesting maple sap.

concern with PFAS because you don't know how it's gonna impact the maple sap."

Smith, who's job title is Manoomin Ganawandang (she who takes care of the wild rice), is an avid harvester and gatherer. She is concerned about the impact of PFAS in wild rice, fish, and other harvestable goods, but she also urges caution when communicating about contamination.

"Our teachings say if we do not use the wild rice, it might go away and not feel appreciated." Smith hopes this research project will help educate tribal communities about PFAS without coming across as alarmist. "We want [our people] to continue to exercise their hunting, fishing and gathering rights."

(Continued on page 3)



Bonnie Willison

Peter Davison, a local resident who grew up on French Island and is now raising kids of his own here says, "It's hard knowing that as a parent, you're always trying to look into the things that your kids are eating, that they're drinking, trying to make sure you're making healthy decisions. And then there's things like this where you didn't even realize it was on the radar until somebody showed up and told you to stop drinking your water."



Midwest
Environmental
Advocates

Get a summary of each podcast episode and corresponding photos at <https://midwestadvocates.org/podcast>

PFAS Ambient Shallow Groundwater Study

Over 95% of Wisconsin's communities and about 70% of Wisconsin residents rely on groundwater for their drinking water supply. PFAS have been detected in groundwater in some areas of the state, but overall prevalence in groundwater was unknown until 2023. The focus of this study was to provide an overview of current conditions in shallow groundwater, which provides an "early warning" to assess threats to the overall state of the groundwater resource used by most Wisconsinites

for their drinking water. While PFAS were detected in 71% of the study samples, only 1% were above a Wisconsin public health value, and 4% were above an EPA proposed Maximum Contaminant Level.

Check out DNR's webpage (<https://dnr.wisconsin.gov/topic/Groundwater/PFASStudy.html>) that explains this study, its findings, and who was involved.



(Forever Chemicals Demystified, continued)

The Sea Grant-GLIFWC collaboration, which is funded by the United States Geological Survey (USGS), will run through 2026. “It’s a really nice example of tribally-driven research that’s important and it helps fill a void,” said Jonathan Gilbert, Biological Services Director for GLIFWC. “I feel good about it.”

The four-part podcast series concludes with a trip to the communities of Peshtigo and Marinette in northeast Wisconsin, where for years, local residents have been engaged in a David-and-Goliath battle with a major firefighting foam manufacturer that has polluted their drinking water and created one of the largest sites of PFAS contamination in the country. Recent research concludes that the contaminated water is now moving into Green Bay, posing a new threat to the fish and wildlife of the region.

The challenges around managing PFAS contamination continue to this day. In 2023 the Wisconsin legislature included \$125 million

in the state budget to advance efforts aimed at cleaning up PFAS pollution and providing safe drinking water to impacted communities. The funding requires final approval by the legislature’s Joint Finance Committee and as of early 2024 there is no agreement on how to move forward. 💧

Bonnie Willison



Kayla Furton shares her experience of getting involved in grassroots organizing and local politics through the group Save Our Water (SOH2O).

Latest Nelson Issue Brief Focuses on PFAS as an Emerging Contaminant of Concern in Wisconsin’s Drinking Water, Lakes, and Rivers

By Nelson Institute for Environmental Studies, UW-Madison, Nelson Issue Brief, November 2023, Vol. 5, No. 1

The Nelson Institute Issue Brief is a quarterly publication that summarizes and conveys up-to-date scholarship from across the UW–Madison campus on key issues of environmental concern. The latest edition focuses on PFAS, an acronym that refers collectively to perfluoroalkyl substances and polyfluoroalkyl substances.

In recent years, PFAS have been detected in water bodies throughout Wisconsin, prompting statewide groundwater testing and calls for regulation. In 2022, the Wisconsin Department of Natural Resources set limits for PFAS concentrations in drinking water, and the EPA announced the first national standard for PFAS. However, much remains unknown about how they move through the environment and the health risks associated with exposure.

In this edition of the Nelson Issue Brief, learn about new methods for identifying PFAS sources and monitoring the extent of contamination in surface and groundwater to help resource managers protect the state’s valuable freshwater resources.

Nature and Fate of PFAS in Wisconsin Landfill Systems: *James Tinjum*

Experiments and Modeling PFAS in Vulnerable Groundwater Systems: *Nelson Institute affiliate Christopher Zahasky, William Gnesda, Elliot Draxler and James Tinjum*

Addressing PFAS in Wisconsin’s Municipal Wastewater Through Source Reduction: *Nelson Institute Environment and Resources graduate student Jason Knutson and Nelson Institute affiliate Ken Genskow*

Understanding the Fate of PFAS in the Environment: *Christina Remucal, Summer Sherman and Kaitlyn Gruber*

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<https://nelson.wisc.edu/pfas-in-surface-and-drinking-water/>



You've Got Mail

Connecting With Your Members

By Eric Olson, Director and Lake Specialist, Extension Lakes

Capacity
Corner
February
2024



In each issue of Lake Tides, we'd like to introduce you to different ideas and resources to help you increase your organization's capacity to care for lakes. In this issue, we're focusing once again on membership capacity, which reflects the value of an organization to their current and possible future supporters.

Organizations should have an email address for official messages. The account should be shared with multiple users so that it does not go unattended when someone moves from the lake or goes on vacation.

Last year at this time we explored some of the ways that organizations can use software to track their members. For 2024 we are keeping things even more basic by looking more closely at emails. Love them or hate them, emails are one of the key ways that members and organizations communicate with each other. Recent changes to Wisconsin's lake district law reflect their usefulness by allowing districts to substitute emails for regular U.S. Postal mail for property owners who opt into an email notification option. We recommend that both lake associations and lake districts employ some basic email practices to both ensure that their messages make their way to the intended targets (maximizing the odds that the email is opened and read) and provide useful options for recipients to manage their own email preferences.

Due to their ease and low cost, the use of emails has

exploded in our digital era. It is estimated that about 10 billion emails are sent in the U.S. daily, roughly 30 times the number of postal mails. To reduce the onslaught of spam, commercial emails are regulated by the Federal Trade Commission (FTC) under the CAN-SPAM Act. It spells out standards (and penalties for violations) for business-related email senders. The standards include practices that we all should apply as email etiquette.

Email Etiquette Standards

- Don't use false or misleading header information. "From," "To," "Reply-To," and routing information must be accurate and identify the person or organization who initiated the message.
- Don't use deceptive subject lines. The subject line must accurately reflect the content of the message.
- Tell recipients where you're located. The FTC requires commercial messages to include a valid physical postal address; this is good practice for all email senders and it reduces the odds that your non-commercial emails get flagged as SPAM.
- Tell recipients how to opt out of receiving future emails from you. Provide a return email address or another easy Internet-based way to allow people to communicate their choice to you.
- Honor opt-out requests promptly. The FTC requires businesses to honor a recipient's opt-out request within 10 business days.

Most email platforms limit the number of recipients for a single message to 500. When sending messages to large numbers of recipients, it is best to use the blind carbon copy (bcc) header to prevent recipients from using "reply all" when their response is often meant just for the original sender. For those groups that regularly send messages to more than 500 recipients, there are free and low-cost services online that allow you to manage lists



Sketch by Grace Hassse

(You've Got Mail, continued)

of emails and track whether or not your emails are being opened and acted on.

Lake organizations also need to create a system for managing incoming emails. At a minimum, organizations should have an email address that they use to send and receive official messages. The account can and should be shared with multiple users so that it does not go unattended when someone moves from the lake or goes on vacation.

Emails as Public Records

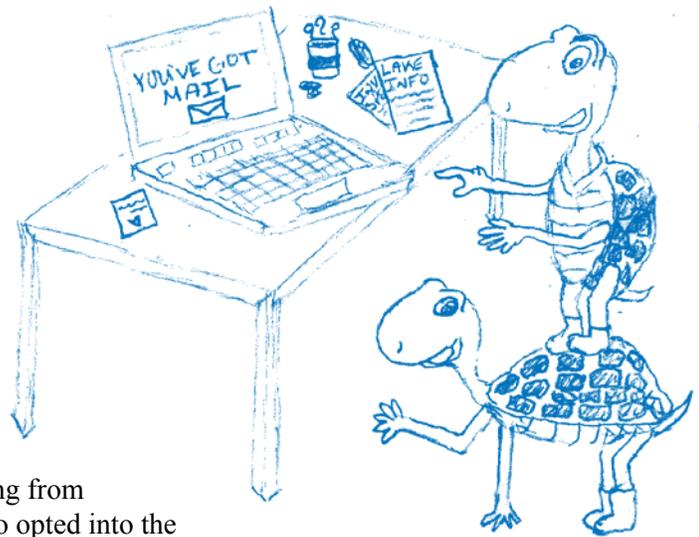
For lake districts, which are local units of government, their email account is a source of public records and should be managed as such. The Wisconsin League of Municipalities advises, "The substance of an email determines whether it is a record – not its location. Accordingly, an email is a public record subject to disclosure when the message content relates to government business/activities, unless an exemption applies. This is true regardless of whether the email is sent from a personal or government account or stored on a personal or government device... Emails and other electronic records of an authority must be retained for the required time period, which is generally seven years..." <https://www.lwm-info.org/1077/Public-Records-FAQ-5>

Lake districts can begin using email to send official notices instead of postal mail. This flexibility is the result of a law passed in 2023, and it only applies to recipients who opt into an email alternative. At a minimum, lake districts

will want to maintain a list of landowner emails that correspond to the recent property tax roll that they normally use to prepare their mailing ahead of the annual meeting. Operating from a list of those who opted into the email alternative, they can simply skip or cross out those addresses from the postal mailing. Some parcels change owners year to year, and some people change email services, so there will be an ongoing need to verify that the email list is up to date and matches the owners of a parcel. We advise including a parcel ID number in any form or sign-up sheet you might use to gather people's emails as they opt in.

More Resources Online

The complexities of email for lake organizations is more than we can summarize in a short *Lake Tides* article. We've compiled more resources and helpful weblinks in the Capacity Corner section (found under *Highlights*) of our website (uwsp.edu/uwexplakes); look for them in the "Membership" section - the base of our Organizational Capacity model. We also want to hear from you! Send us an email with your own email management tips and tricks. 💧



Sketch by Grace Hasse

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DNR Releases Another New Tool for Analyzing and Displaying Data

By Katie Hein, Lakes Monitoring Technical Lead, Wisconsin DNR

The Wisconsin DNR uses plant communities to monitor the health of lakes and the quality of habitat. So far, ecologists have conducted 2,896 unique plant surveys across 1,149 different lakes in Wisconsin. Because DNR staff employ a standardized sampling method, they can compare all the surveys to get a better idea of how the habitat is doing in Wisconsin lakes.



The Aquatic Plant Explorer (APEX) displays statewide distributions of aquatic plant species, as well as individual lake maps that show plant abundance, the number of species, and the distribution of each aquatic plant species. APEX also graphs changes in abundance of aquatic plant species over time and evaluates the overall condition of aquatic plants in the waterbody. You can access APEX from the DNR's Aquatic Plants homepage (<https://dnr.wisconsin.gov/topic/lakes/plants>). To ask questions about APEX, submit new plant data, or report data errors, please contact DNR Baseline Aquatic Plants Survey at dnrbaselineaquaticplants@wisconsin.gov.





Lake Leaders Take on Statewide Roles

By Mike Engleson, Executive Director, Wisconsin Lakes

WISCONSIN LAKES

Whether you have aspirations for “statewide office” or just want to become a better leader for your own local organization, Wisconsin Lakes highly recommends taking a look at the Lake Leaders Institute.

Provided by John Richter



John Richter, Plum Lake Association, joined the Wisconsin Lakes board of directors.

Wisconsin Lakes, your statewide nonprofit lake organization, elected new officers and a new director in November, continuing a robust tradition of graduates of the Wisconsin Lake Leaders Institute playing a leadership role in Wisconsin’s citizen lake organization.

John Richter, Lake Leader Crew 11, joined the board as a director. John already boasts significant activity in protecting Wisconsin’s lakes, serving on the board of the Last Wilderness Alliance, as Chairman of the Plum Lake Association, and is the founder of the Wisconsin Shoreland Initiative.

Two new officers were also installed in November, as Dan Butkus took over as President for the outgoing Cathie Erickson (Crew 8, who remains on the board). Dan, a resident of Waunakee but active on Squash Lake in Oneida County, is also a Crew 11 graduate. Chris Sampson, Crew 12 took over the duties as

Secretary from Kristin Charlton (Crew 6, who also remains on the board). Currently 12 of the 13 directors on Wisconsin Lakes’ board are graduates of the Lake Leaders Institute, as is Executive Director Mike Engleson (Crew 9).

While a Lake Leaders bullet on the resume is not necessary to be a director of Wisconsin Lakes, history has shown that Lake Leaders often become compelled to seek out leadership positions to help influence actions at the statewide level. Most directors would say that their time in the Lake Leaders Institute gave them the understanding and tools to be an effective leader and the context to see why support for a statewide organization is so important. Indeed, some directors didn’t start as Lake Leaders, but sought out the program once they became more involved with Wisconsin Lakes!

Whether you have aspirations for “statewide office” or just want to become a better leader for your own local organization, Wisconsin Lakes highly recommends taking a look at the Lake Leaders Institute. For many it can truly change their life.

And for Wisconsin Lakes, it helps us find our leaders for the future. To meet our current board and staff, visit wisconsinlakes.org.

Interested in being considered for a director position in the future? Just send a message to info@wisconsinlakes.org for more information. 💧

Learn more about Lake Leaders

Find out more about the Lake Leaders Institute on the Extension Lakes website at uwsp.edu/uwexplakes.

Lakes 101

Broaden Your View: Think Watershed Scale

By Scott Provost, Water Resources Specialist, Wisconsin Department of Natural Resources

Understanding that our lake and river water quality starts on the land is the foundation to understanding water quality management. All the land that drains to a lake or river, the watershed, basically determines the “DNA” of the lake. If the watershed is in good shape, the water should be too. Conversely, if the watershed has too much bare soil, excess fertilizers (i.e. nutrients), stormwater runoff, etc., so will our lakes and rivers. Eventually, these nonpoint sources of pollution find their way to your favorite lake or river. Believe it or not, in Wisconsin, that includes the Gulf of Mexico and the Great Lakes! Whether it be the tiny brook in your backyard or the Gulf of Mexico, the watershed determines the health of all the water in between, even groundwater.

Managing a Watershed

Naturally the next question is, why don't we manage the watershed? The answer is, we do, but it's more difficult because most land is in private ownership versus the common ownership of navigable waters. It is also a little harder to see the connection. It's easier to look out at a lake or river and be captivated by its beauty while forgetting how it's all connected to the land.

A Win-Win Partnership

The tide is beginning to change. Folks from all backgrounds are coming together to equate watershed health to lake and river health. The results have been fantastic! Wisconsin is starting to embrace watershed management through efforts like producer-led watershed groups (see https://datcp.wi.gov/Pages/Programs_Services/ProducerLedProjects.aspx). That's not all. Lake and watershed organizations are pitching in. They understand that their lake management area is not just the shoreline but it's much larger than that – it's

the watershed. And, by assisting with grant share requirements for private landowners upstream, they help decrease nonpoint source pollution to their lake or river. Indeed, they have realized that to effectively improve and provide long-term water quality protection, they need to invest in the watershed. The economics of it are quite simple, too. In some cases, a lake group only needs to invest a fraction of traditional in-lake management costs to repair an upstream source of nutrients that is a driving force to their lake water quality challenges. It's a win-win: a source of pollution is controlled (in many cases permanently), and a partnership is created between an upstream private property owner and riparian owner. Even better, that private property owner may share their appreciation with other owners, which starts a cascading effect of a watershed management partnership. This is exactly what is starting to happen across Wisconsin. Join the watershed movement. You will be part of the solution for improving water quality from the little brook in the backyard all the way to the Gulf of Mexico! We're all connected, just like a watershed. 💧

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Mudpuppies

The Winter Salamander

By Mason Polencheck, UW-Madison Undergraduate Researcher

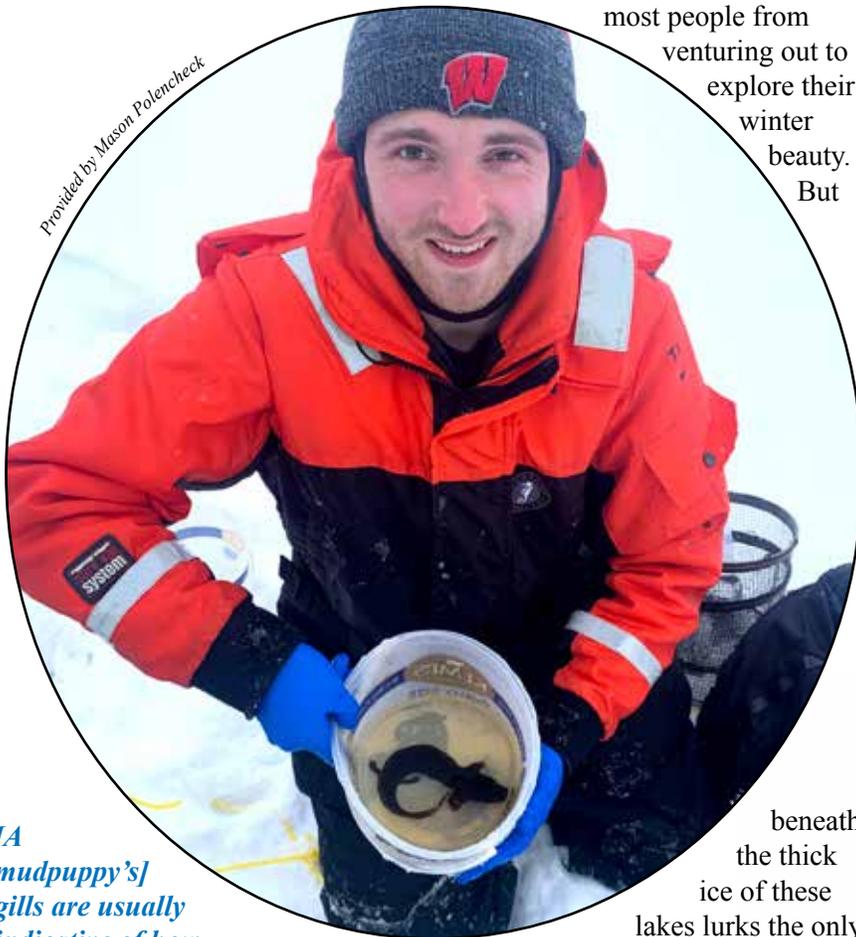
Winters on Wisconsin lakes can be harsh for even the most experienced Wisconsinites. The usual sub-zero temperatures, deep snows, and biting winds deter most people from venturing out to explore their winter beauty. But

In contrast, mudpuppies barely move during the summer, preferring to relax under a rock and eat what happens to pass by. The summer is also when female mudpuppies will excavate nests under rocks or logs and lay their eggs. They will actively guard their nests until their clutches hatch, sometimes having over 100 babies! If you're an angler, their summer inactivity may explain why you have caught mudpuppies in the fall or winter, but rarely in the summer.

Mudpuppies can be found throughout much of the United States, inhabiting almost all states from the Mississippi River to the Appalachian Mountains. They are also found in southern Canada and all of the Great Lakes. They will inhabit lakes, rivers, streams, and even some ponds! In all cases, they will normally hide under rocks if possible, but will also take shelter among aquatic plants or in the mud if rocks are sparse. They thrive in cold and well-oxygenated environments but will still inhabit less-optimal environments as well.

A factor that allows mudpuppies to dwell in many different habitats is the various ways they can breathe.

The primary way mudpuppies breathe is through their feathery gills,



Provided by Mason Polencheck

[A mudpuppy's] gills are usually indicative of how much oxygen there is in the water. If their gills are short, it means the water is usually well-oxygenated, and if their gills are long, it means the water usually has low oxygen levels.

beneath the thick ice of these lakes lurks the only fully aquatic salamander of Wisconsin, the common mudpuppy (*Necturus maculosus*). Mudpuppies, also known as waterdogs, are nocturnal salamanders with red, feathery gills that actively enjoy our northern winters. In fact, winter is their most active time of the year. They will hunt and forage at the bottom of lakes and even breed from late fall through the winter. Many anglers will catch mudpuppies in the winter if their bait gets too close to the bottom of the lake or river in which they are fishing, much to their dissatisfaction.



(Mudpuppies, continued)

similar to fish. Their gills are usually indicative of how much oxygen there is in the water. If their gills are short, it means the water is usually well-oxygenated, and if their gills are long, it means the water usually has low oxygen levels. Mudpuppies can also breathe through their skin by passive gas movement. Oxygen freely enters through their skin and carbon dioxide they produce is released from the skin; this breathing method serves as a backup to their gills. If oxygen levels are extremely low, mudpuppies also have lungs that allow them to gulp air when they swim to the surface. Their lungs are usually used for buoyancy purposes, but can be used for breathing if necessary.

Mudpuppies don't have food preferences, as long as their prey can fit in their mouths. They will eat aquatic insects, snails, crayfish, tadpoles, small fish, and even each other! This wide palette also helps mudpuppies inhabit many different areas. Conversely, there are many predators that will happily eat a mudpuppy if the opportunity arises. Large fish like walleye, northern, and muskie are the main predators of mudpuppies. However, seagulls, cranes, minks, otters, and snakes have all been observed eating mudpuppies. It's likely that the decreased activity or absence of these predators in the winter plays a role in why mudpuppies are more active in the winter.

There are many other threats to mudpuppies besides predators. Pesticides are also a major concern for mudpuppies, as they are sensitive to water quality and are known to be a bioindicator species, which is a species that can be used to monitor an environment's health. TFM, a "lampricide" used to kill sea lampreys, is lethal to mudpuppies, with over 500 mudpuppies being found dead after a TFM treatment in Vermont. Fishermen will often kill or throw mudpuppies on shore because they believe mudpuppies decrease fish populations or are



poisonous, neither of which are true. The Chytrid fungus, a widespread amphibian disease, is also a concern for mudpuppies. Chytrid has decimated amphibian populations worldwide and has been found in mudpuppy populations in the southern US. Lastly, siltation is a major problem in rivers and streams, as the mudpuppy's normal rocky habitat is covered by sand or soil, which makes it more difficult to reproduce.

I am currently studying mudpuppies in Wisconsin to understand how their populations are doing, whether they have the Chytrid fungus, and what they are eating year-round. The last study on mudpuppies in Wisconsin was in 1982, so this information is much needed to determine appropriate conservation efforts.

If you happen to catch a mudpuppy, please snap a photo to report to the DNR (DNRherptiles@wisconsin.gov) and then release it where it was caught. The mudpuppy is a unique species that is declining in much of the United States, so any way we can help them will be beneficial for the species. 💧

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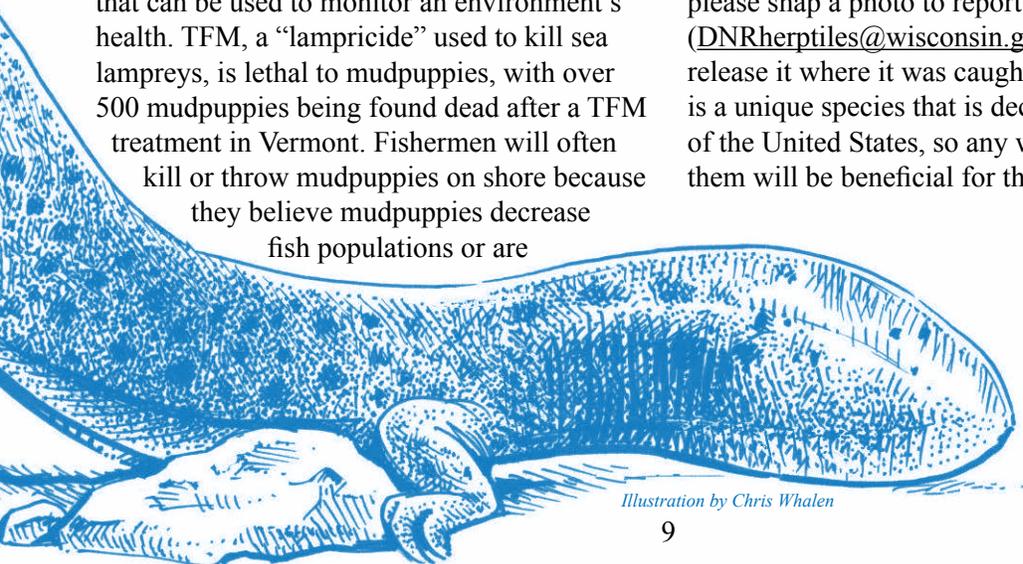


Illustration by Chris Whalen



Lake Monitoring

Protection Network

Providing Consistent Funding to Counties for AIS Prevention and Monitoring Since 2021

By Amy Kretlow, AIS Program Coordinator, Wisconsin Department of Natural Resources

In 2023, through the LMPN, there was 90% statewide coverage and, incredibly, the LMPN partners performed and led 547 monitoring events!

The new year brings Wisconsin Department of Natural Resources' (DNR) Lake Monitoring Protection Network (LMPN) into its fourth official season. In 2020, groups such as Beaver Creek Reserve, Fox-Wolf Watershed Alliance, and UW-Sea Grant were the first to pilot a new allocation model to fund aquatic invasive species (AIS) programs in counties. The LMPN took an unpredictable, competitive grant process to a consistent funding model dispersing approximately \$1 million among the 72 counties of our state. Counties can now rely on non-competitive funding from year to year to perform core network activities.

A few of these activities include:

- ◆ Citizen Lake Monitoring Network (CLMN) volunteer monitoring
- ◆ Early detection monitoring for aquatic invasive species
- ◆ Participating in the Clean Boats, Clean Waters (CBCW) watercraft inspection program
- ◆ Participating in the Purple Loosestrife Biocontrol program
- ◆ Participating in other aquatic invasive species prevention campaigns and lake protection activities as approved by the department

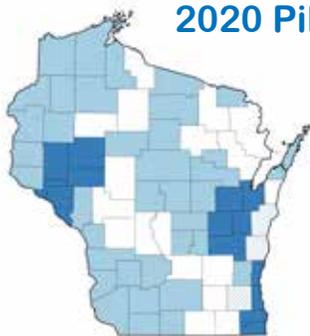
Wisconsin's Aquatic Invasive Species Management Plan takes a proactive prevention approach by addressing the "pathways" which are the ways AIS can enter and move throughout the state. The LMPN partners are a major component in this type of work by educating dock service providers, monitoring pet stores, and reaching out to pond and wetland gardeners regarding AIS.

In the first year of LMPN (2021), approximately 40 counties participated and in 2024 we have 69 counties involved. The LMPN model is evaluated each year to note what's working and what's not quite there yet.

Who's the LMPN contact in your county?

https://apps.dnr.wi.gov/lakes/invasives/Contacts.aspx?role=AIS_CTY_TRIB

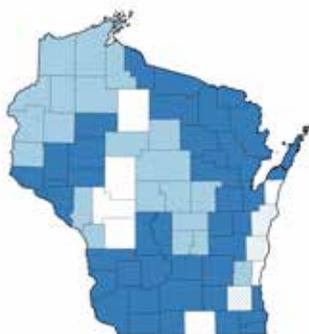
2020 Pilot



LEGEND Counties with:

- New Lake Monitoring Protection Network
- Legacy AIS Education, Prevention, and Planning Grant
- ▨ Interim Contract

2021 Coverage



2022 Coverage



2023 Coverage



2024 Coverage



(LMPN, continued)

The DNR and program leads are examining the model for improvements and new tools to increase program success. Input from our LMPN partners is also welcome and important to the process.

Be on the lookout in the next few issues of *Lake Tides* when we will introduce a few of our LMPN partners and showcase their successful impacts as part of this program. 💧

Jeanne Scherer

The LMPN partners have significantly and successfully increased AIS monitoring efforts throughout the state. Under the competitive grant model, we had counties throughout the state where no one was performing AIS monitoring consistently. At that time the partners performed and led approximately 210 monitoring events, which included early detection monitoring and leading citizens through monitoring events such as Snapshot Day and Project Red. In 2023, through the LMPN, there was 90% statewide coverage and, incredibly, the LMPN partners performed and led 547 monitoring events! That is almost half of the statewide monitoring events that occurred.



Lake Monitoring Protection Network partners working with Gunlock Lake citizens on purple loosestrife biocontrol.

Collaborative Detection Raises the Bar

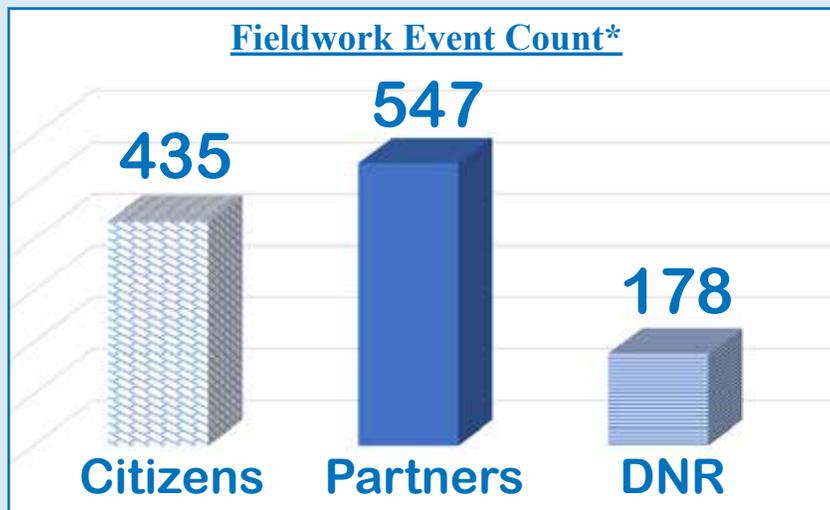
By Maureen Kalschur, AIS Monitoring Lead, Wisconsin Department of Natural Resources

Once again, Wisconsin aquatic invasive species (AIS) partners exceeded our goal of 1,000 monitoring events for invasive species – this year they did 1,250 to be exact!

So far, these efforts identified roughly 150 new AIS populations* that are common in the state like mystery snails and purple loosestrife. Only a few new populations of rare species were detected last year, and they appear to be assimilating in systems that have healthy shorelines and robust native communities.

We still have many unverified new detections of commonly reported species, but the Surface Water Integrated Monitoring System (SWIMS) team has been working hard to get those verified. We now offer the ability for

all collectors to attach photos when entering data. Understanding how difficult it can be to collect specimens and bring them to a local specialist, this new ability will help streamline the verification process. Stay tuned for updates about how to collect and submit photos from your statewide monitoring programs (CLMN, WAV, etc.).



*Counts are preliminary as data is still being analyzed.

Lakes and Rivers Convention

Part of Wisconsin Water Week 2024

Agenda *...at a glance*

Agenda subject to change.

Wednesday, April 10

Workshops (Pre-registration required)

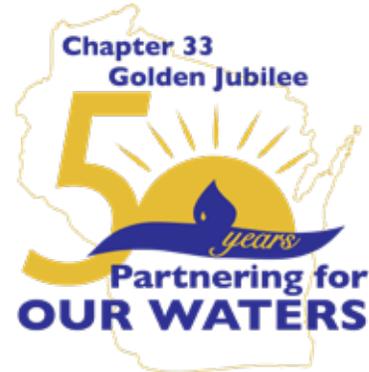
8:00 AM	Registration opens
9:00 AM-Noon	Workshops
Noon-1:00 PM	Lunch on your own (or pre-register for on-site)
Noon	Exhibits open (until 6:00 PM)
1:00-4:00 PM	Workshops
4:00-6:00 PM	Networking time - Dinner on your own Visit Business and Educational Displays
6:00-11:00 PM	Welcome Reception Flow Project Art Exhibit (6:30 PM) Pictionary game (7:30 PM)

Thursday, April 11

7:30 AM	Registration opens
8:00 AM	Exhibits open (until 6:00 PM)
8:00-8:50 AM	Concurrent Sessions (five choices)
9:00-10:30 AM	Welcome & Kickoff Keynote
10:40 AM-Noon	Concurrent Sessions (five choices)
12:15-1:30 PM	Lunch (Speaker TBA)
1:45-2:25 PM	Concurrent Sessions (five choices)
2:35-3:15 PM	Concurrent Sessions (five choices)
3:30-4:30 PM	Lightning Talks
3:30-5:30 PM	Lake organization resource exchange Networking time Visit Business and Educational Displays
4:30-5:30 PM	Poster Session (snacks and cash bar)
6:00-8:00 PM	Golden Gala Awards Banquet/Ceremony

Friday, April 12

7:30 AM	Registration opens
8:00 AM	Exhibits open (until Noon)
8:00-9:00 AM	Concurrent Sessions (five choices)
9:15-10:15 AM	Concurrent Sessions (five choices)
10:45-11:45 AM	Concurrent Sessions (five choices)
Noon-2:00 PM	Friday Confluence (lunch included)
2:15-4:00 PM	Workshops (pre-registration required)



We welcome you to register for the 2024 Wisconsin Lakes and Rivers Convention, taking place April 10-12 at the Stevens Point Holiday Inn and Convention Center!

This gathering is a place where you can learn from respected experts, grassroots organizers, and passionate water advocates! Engage in the workshops and interactive sessions all day on Wednesday and Friday afternoon, in addition to the 60 concurrents sessions on Thursday and Friday! Enhance your network of water-focused professionals throughout the Convention by connecting with other attendees, speakers, and exhibitors. Bring it all together during the Friday Confluence and prepare for your next steps!

This year's theme is Chapter 33 Golden Jubilee: 50 Years of Partnering for Our Waters. 2024 marks the 50th anniversary of Wisconsin's unique lake law, Chapter 33: Public Inland Waters. The legislature and governor worked together in the early 1970s to establish a collaborative research and

Deadlines:

February 29: Early-bird Registration

March 24: Photo Contest (see page 15)

April 1: Call for Posters (see page 15)



management framework that lives on today as the Wisconsin Lakes and Rivers Partnership. The law also created the pathway for landowners around lakes to form Public Inland Lake Protection and Rehabilitation Districts. Today, over 250 lake districts in Wisconsin undertake lake protection and rehabilitation projects for the benefit of all lake users. As we gather in Stevens Point for our annual Convention, we'll look back at the progress made over 50 years of partnering to protect and restore waters, and we will collectively look ahead to the next 50 years to ensure that future generations of lake lovers will continue our legacy of proactive lake, river, and watershed management.

Virtual attendance is available for select sessions as well as plenary speakers on Thursday and Friday. You must have the ability to use Zoom to join these events. Learn more and register at wisconsinwaterweek.org.

Choose from 60 Different Sessions

With three full-days of engaging content, we know there is something for everyone at this event. Check out all of the workshop offerings on the next page and register early as these fill up quickly. The bulk of the Convention will include keynote speakers and dozens of concurrent sessions focusing on these topics:

- 50 Years of Water Science Translated to Action
- Lake and River Flora and Fauna
- Human and Critter Health
- Managing Recreational Impacts
- Watershed Approach to Water Protection
- Legislative & Policy Updates
- Capacity Building Strategies for Lake and River Groups
- Aquatic Invasive Species
- County Successes Over the Last 50 Years

Thursday Welcome Panel

Thursday's welcome and kickoff plenary session will include a look at the past, present, and future of lake districts and Wisconsin's unique lake law. William O'Connor will help us understand the early evolution of lake districts, drawing on nearly a half-Century of work as an educator, attorney, and advocate. He

was one of the original authors of the citizen's guide to Wisconsin Statutes Chapter 33, the lake district law. Mary Ellen Vollbrecht will share insights from a retired DNR manager who was deeply involved in state water policy since the 1980s, she now serves on the Wisconsin River Alliance Board of Directors. Eric Olson, Director of Extension Lakes, will share his views on the current issues facing lake districts and what their prospects might be for the future.

Friday Confluence

Join celebrated rural storytellers/authors Jerry Apps and Natasha Kassulke, who will share ideas on critical and creative thinking related to the environmental challenges we face. Apps and Kassulke will guide us through reflection, allowing for a confluence of ideas with other Convention participants while developing ways to share the information you receive with your friends and neighbors.

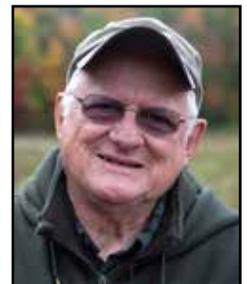
Confluence (noun)
: a coming or flowing together, meeting, or gathering at one point

Natasha Kassulke is a former journalist for the Wisconsin State Journal and former editor of Wisconsin Natural Resources magazine. Today, she directs communications for the Office of the Vice Chancellor for Research and Graduate Education at UW-Madison and teaches journalism courses part-time at Madison College. She and her husband, Steve Apps, live in Madison, Wisconsin.

Provided by Natasha Kassulke



Jerry Apps is a former county extension agent and is now professor emeritus at UW-Madison, where he taught for 30 years. Today he works as a rural historian and full-time writer and is the author of many books on rural history, country life, and the environment. He has created six-hour-long documentaries with PBS Wisconsin, has won several awards for his writing, and won a regional Emmy Award for the TV program *A Farm Winter*. Jerry and his wife, Ruth, have three children, seven grandchildren, and three great-grandchildren. They divide their time between their home in Madison and their farm, Roshara, in Waushara County.



Provided by Natasha Kassulke

You can read a detailed agenda online at wisconsinwaterweek.org.

wisconsinwaterweek.org



Interactive Workshops - April 10 and April 12

Your 2024 Lakes and Rivers Convention will include several half-day workshop opportunities on Wednesday, April 10 and Friday, April 12. Get all the details and pre-register at wisconsinwaterweek.org before all the spots are taken!

Wed. AM Workshops ~ 9:00 AM-12:00 PM

Clean Water Act Training

The River Network, River Alliance, Midwest Environmental Advocates

Harnessing Data for Lake Management Using New Online Tools

Katie Hein, Justin Chenevert, Sam Blackburn, and Aaron Fisch, WI Department of Natural Resources

Aquatic Plant Ecology and Identification

Paul Skawinski, Extension Lakes, UW-Stevens Point and Michelle Nault, WI Department of Natural Resources

Working with Land Trusts to Protect Shores and Watersheds

Austin Holland and Abby Dremel, Center for Land Use Education, UW-Stevens Point

Effective Digital Communication Strategies for Lake Organizations and Related Groups

Erin Scholtens Ter Beest, Green Lake Association

New Lake District Commissioner Training

Eric Olson, Extension Lakes, UW-Stevens Point

Working in the Watershed Part 1: Information and Resources to Launch Your Watershed Planning Efforts

Whitney Prestby and Dan Zerr, UW-Madison Division of Extension, Tracy Zemlo, Fox Lake Inland Lake Protection and Rehabilitation District (FLILPRD)

Wisconsin's Fisheries Management Approach: Roles for Local Groups, Stocking and Beyond

Scott Toshner, WI Department of Natural Resources

Wed. PM Workshops ~ 1:00-4:00 PM

Citizen Lake Monitoring Network (CLMN) Refresher Training

Chris Kolasinski, Rachel Sabre, and Claire Hetzel, WI Department of Natural Resources and Paul Skawinski, Extension Lakes, UW-Stevens Point

In Case of Emergency

Peter R. Jensen, Eagle Spring Lake Management District

Agenda subject to change.

Wed. PM Workshops (cont.) ~ 1:00-4:00 PM

Protecting and Enhancing Your Waterfront Investment with Native Plants: Putting the Tools Together

Jeanne Scherer, UW-Madison Division of Extension, Tracy Arnold, Portage County, and Elizabeth Tanner and Lauren Haydon, WI Department of Natural Resources

Neonicotinoid Pesticides: What We Know and Impacts to Aquatic Ecosystems

Andy Morton, WI Department of Natural Resources (retired) and other panelists TBA

Work Smarter, Not Harder: Using Online Tools to Collaborate with Others and Accomplish Your Group's Tasks

Megan Wecker, UW-Madison Division of Extension

Lake District Treasurer Workshop (Limit 40)

Eric Olson, Extension Lakes, UW-Stevens Point and Dan Butkus, Squash Lake Management District and WI Lakes

Working in the Watershed Part 2: Watershed Implementation Toolbox: You Have a Watershed Plan, Now What?

Whitney Prestby and Dan Zerr, UW-Madison Division of Extension

Lake District Chairs and Secretaries: Robert's Rules of Order Procedures

Dan Foth, UW-Madison Division of Extension

Fri. PM Workshops ~ 2:15-4:00 PM

Swimmer's Itch: Finding Workable Solutions

Sarah Sewall, MD, and Joe Fritsche, North and South Twin Lakes Protection and Rehabilitation District

Building a Boating Ordinance: From Conception to Enforcement

Wisconsin Lakes, WI Department of Natural Resources Recreation Wardens, Lake Group with a Boat Patrol

Organizational Capacity Bootcamp: Resources to Boost Your Organization

Jen Jefferson, WI Department of Natural Resources, Sara Windjue and Eric Olson, Extension Lakes, UW-Stevens Point

Beyond the Basics: Macroinvertebrate Ecology and Identification

Jessica Orlofske, UW-Parkside



Call for Posters

Including your poster in the Wisconsin Lakes and Rivers Convention is a great way to share your research, project, or success story! We will include snacks and a cash bar during this year's poster session for a relaxed and energetic atmosphere for sharing.



Doug Moore

Hannah Paulson from Wisconsin Sea Grant collaborated with Andrew Gronewold, Yifan Luo, Maega Muir, and Justin Huber on their poster, "Climate Change and the Great Lakes Water Balance" at the 2023 Wisconsin Lakes and Rivers Convention.



Show Your Partnership Colors

Order your Convention t-shirt when you register! This super-soft, dark blue tee with gold lettering shows you're part of the Wisconsin Lakes and Rivers Partnership and lets others know about Wisconsin Water Week!

Photo Contest

The 2024 Wisconsin Lakes and Rivers Photo Contest is now accepting digital entries! You can enter one image in each of two categories:

- **Natural Features In and Around Lakes and Rivers and Underwater**
Examples include wildlife, vegetation, geology, insects, close-ups of aquatic life.
- **People Enjoying Lakes and Rivers**
Images with people fishing, canoeing, skiing, swimming, boating, etc.

We will print your digital images in full color on 13×19 paper and they will be displayed at the 2024 Wisconsin Lakes and Rivers Convention, April 10-12, in Stevens Point. If you are attending the Convention, you are welcome to take your print(s) with you after noon on Friday, April 12. 💧



Ben Morr

"Stay!" was taken at Hancock Lake in Waushara County and received 1st place in the People Enjoying Lakes and Rivers category in the 2021 Lakes & Rivers Photo Contest.

CALENDAR

[Check out our online calendar at uwsp.edu/uwexplakes](https://uwsp.edu/uwexplakes)

Stay up-to-date with lake and river events across the state, region, and beyond with our online calendar. Don't see your event listed? Let us know by clicking "Add an Event" at the top of the page and fill out the short form!

Keep the Lake Tides Balloon Flying High, Forever!

An endowment fund was started to eventually support undergraduate fellowships, graduate assistantships, newsletter production expenses, and other *Lake Tides* expenses. To contribute to this endowment account, please go to <https://give.uwsp.edu/give-now>

- Enter the gift amount
- Select Designation – Choose "College of Natural Resources"
- Additional Instructions – Type in: "Wisconsin Lakes Partnership Program Endowment" VERY IMPORTANT STEP
- Complete the billing information and confirm donation

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Lake Tides -- AAM1598

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800 Reserve Street
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PAID
MILWAUKEE, WI
PERMIT NO. 530

Volume 49, No. 1
Winter/Spring 2024



Extension Lakes
College of Natural Resources
University of Wisconsin-Stevens Point

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A quarterly publication of the Wisconsin Lakes & Rivers Partnership

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Printed on recycled paper with vegetable-based ink.

Reflections

“I first realized the critical importance of water when I was a little shaver growing up on a central Wisconsin farm in the 1930s and 1940s. At the time, we had no electricity at our farm, and a windmill pumped our water from a deep well. Then, one hot day in August, the wind quit blowing, and the windmill quit turning. Within a day, the stock tank that provided the water for the animals was empty, and the cattle and horses had nothing to drink. There was no water for the hogs and the chickens. And we had no water for washing, drinking, or cooking.”

— Jerry Apps

Planting an Idea: Critical Thinking About Environmental Issues

